### Selective Credulity

Paul L. Harris

Harvard University

#### Collaborators

- Kathleen Corriveau (Harvard University)
- Maria Fusaro (Harvard University)
- Elizabeth Meins (Durham University)
- Kerstin Meints (Lincoln University)
- Katie Kinzler (University of Chicago)

### Trust and information that is sent by the user

• A breakdown in trust might occur in connection with information that is sent by the user – the user supplies information and this is passed on in ways that he or she would not want.

### Trust and information that is received by the user

 A break down in trust might occur in connection with information that is received by the user – the user is sent information that he or she does not believe.

#### Trust in early childhood

• Theoretical background: the child as scientist versus the child as trusting disciple

• Are children credulous?

How do they avoid the dangers of credulity?

# The child as scientist versus the child as trusting disciple

• Rousseau, Piaget, Montessori: the child learns best when acting as an autonomous scientist.

• From an evolutionary perspective, this is implausible: children are natural pupils who are receptive to cultural wisdom rather than the lessons of nature.

#### Are children credulous?

- Deferential over-imitation (Lyons, 2010).
- Deferential categorization (Jaswal, 2004).
- Trust in false information (Jaswal, Croft, Setia & Cole, 2010).
- From is to ought (Rakoczy, Warneken & Tomasello, 2008).
- Harris & Koenig (2006)

#### Thomas Reid (1764)

• Implanted in us "is a disposition to confide in the veracity of others and to believe what they tell us...It is unlimited in children."

#### Bertrand Russell (1921)

• "Doubt, suspense of judgment and disbelief all seem later and more complex than a wholly unreflecting assent."

#### Wittgenstein (1969)

• "A child learns there are reliable and unreliable informants much later than it learns the facts which are told it."

#### **Dawkins** (2006)

• "Theoretically, children might learn from personal experience not to go too near a cliff edge, not to eat untried berries, not to swim in crocodile-infested waters. But, to say the least, there will be a selective advantage to child brains that possess the rule of thumb: believe, without question, whatever your grown-ups tell you."

# How do children avoid the dangers of credulity?

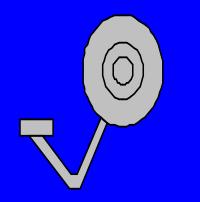
• Even if children are surprisingly indiscriminate in choosing *what* to believe they are quite selective in choosing *whom* to believe.

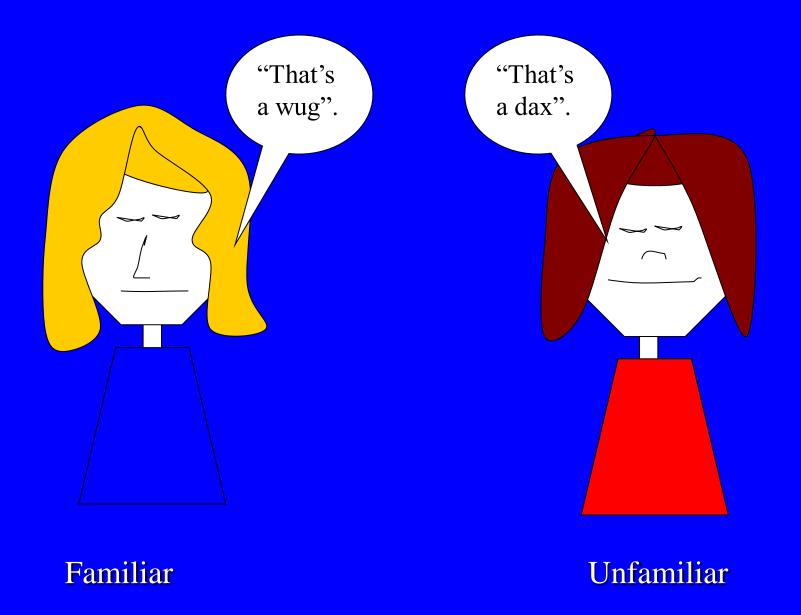
#### Children use two broad strategies

- They keep track of the history of their interaction with individuals and trust more reliable informants.
- They assess unfamiliar individuals for their cultural typicality, preferring those who conform to local norms.

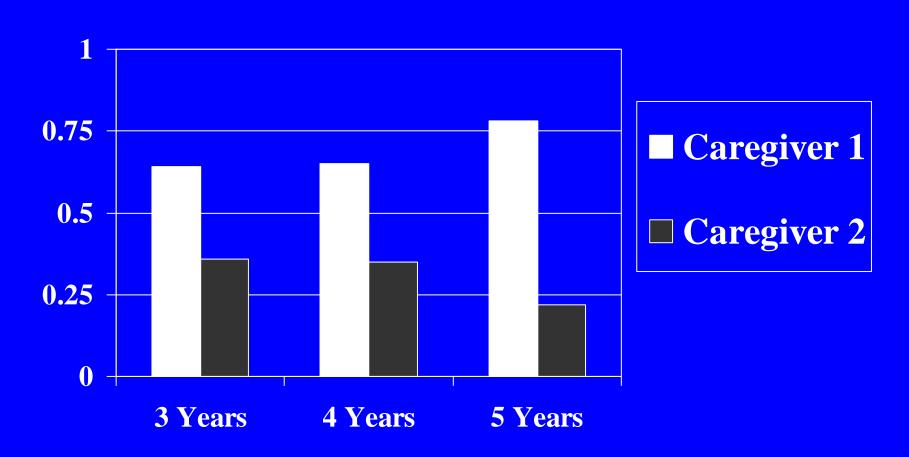
#### **Attachment Theory**

- Infants are selective in seeking emotional reassurance or a secure base (Bowlby, 1969; Hrdy, 2000).
- Only after prolonged deprivation (e.g., in Rumanian orphanages) are children indiscriminate (so-called disinhibited attachment) (Rutter et al., 2010).

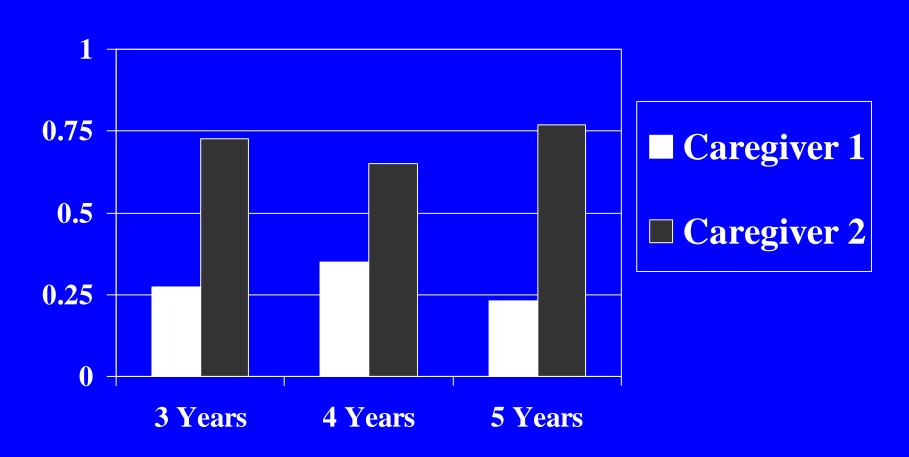




## Choice of informant by Age and Caregiver at Center 1



## Choice of informant by Age and Caregiver at Center 1



#### A preference for reliable informants?

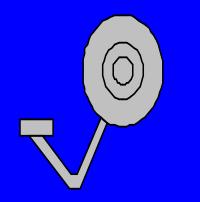
- Do children make any kind of cognitive evaluation of their informants?
- For example, do 3- and 4-year-olds prefer information from accurate as opposed to inaccurate informants?
- How long does such a preference last?

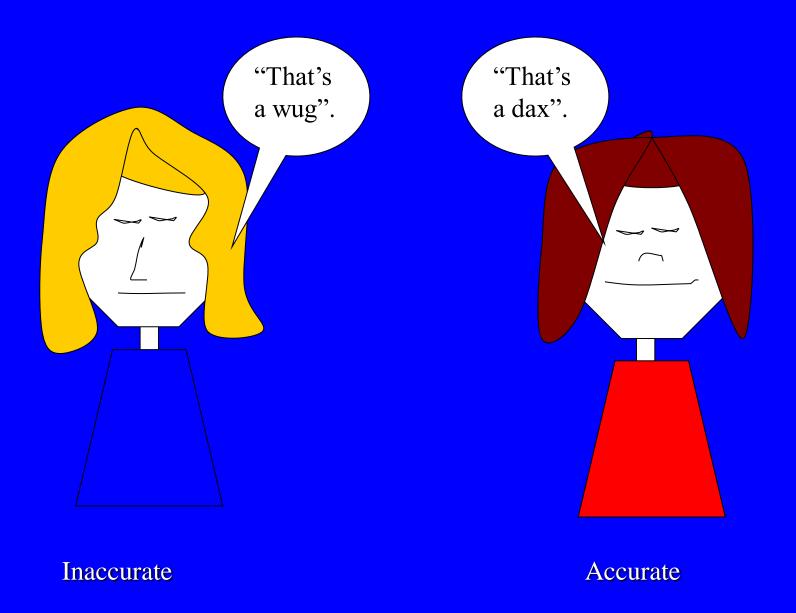
#### Corriveau & Harris (2009a)

- Child meets two strangers.
- Day 1: Familiarization + Test trials
- After 4 Days : Test Trials
- After 1 Week: Test Trials

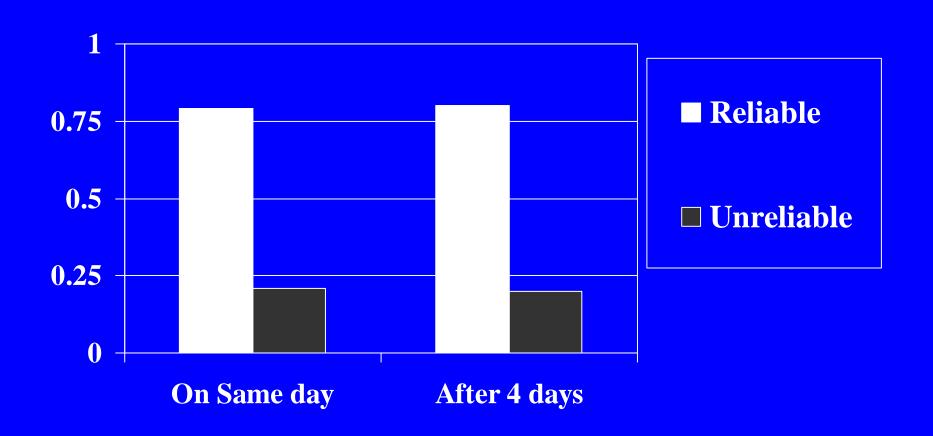




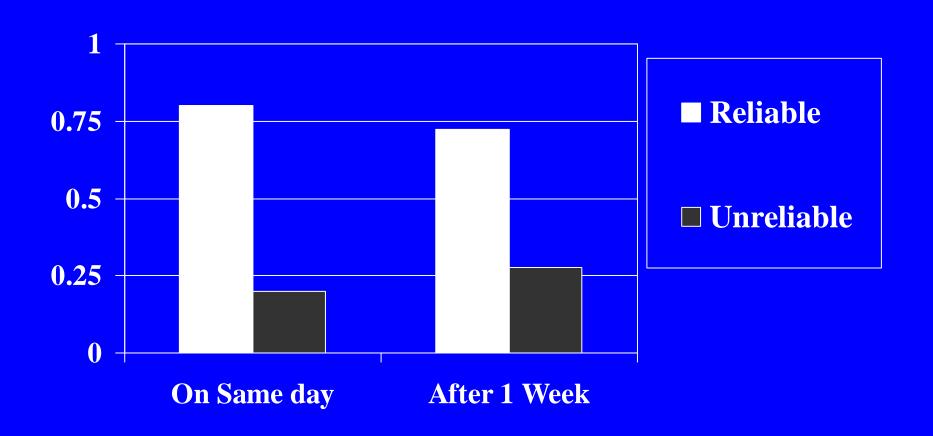




### Selection of reliable versus unreliable reliable informant



### Selection of reliable versus unreliable reliable informant



### Corriveau & Harris (2009a)

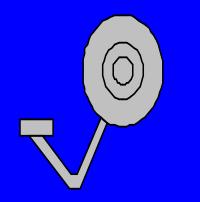
 These results extend several earlier studies showing sensitivity to informant accuracy (Birch, Vauthier & Bloom, 2008; Clément, Koenig & Harris, 2004; Koenig, Clément & Harris, 2004; Koenig & Harris, 2005; Pasquini, Corriveau, Koenig & Harris, 2007; Jaswal & Neely, 2006).

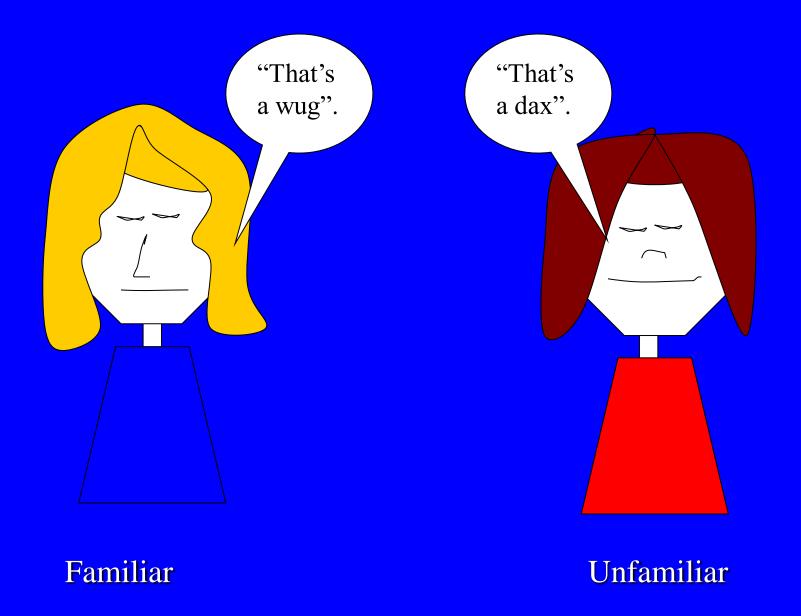
#### Well-established findings

- 1. Extends to facts as well as names.
- 2. Does not depend on leading questions by experimenter.
- 3. Does not depend on a contrast between 100% accuracy and 0% accuracy; 75% vs. 25% also works
- 4. Selective trust is not transient lasts up to 1 week.

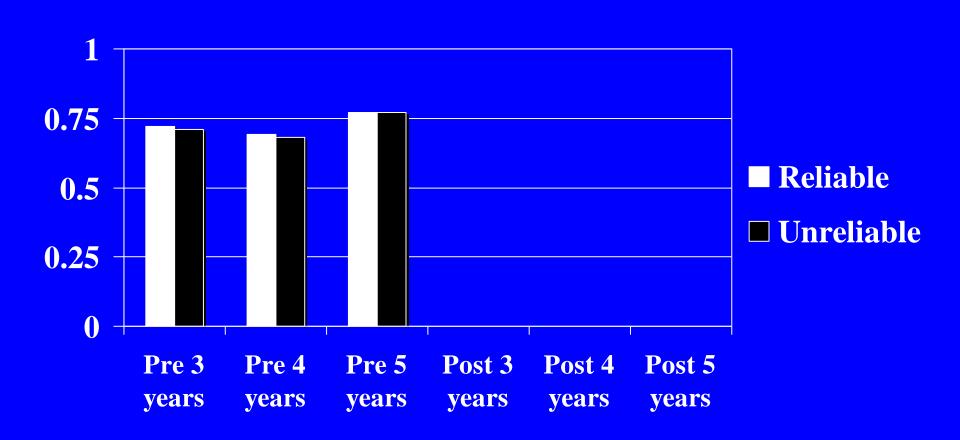
# Weighing reliability against familiarity

- A familiar informant is preferred to an unfamiliar informant
- An accurate informant is preferred to an unreliable informant.
- What happens if familiarity and accuracy are pitted against one another?



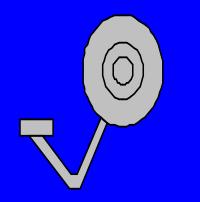


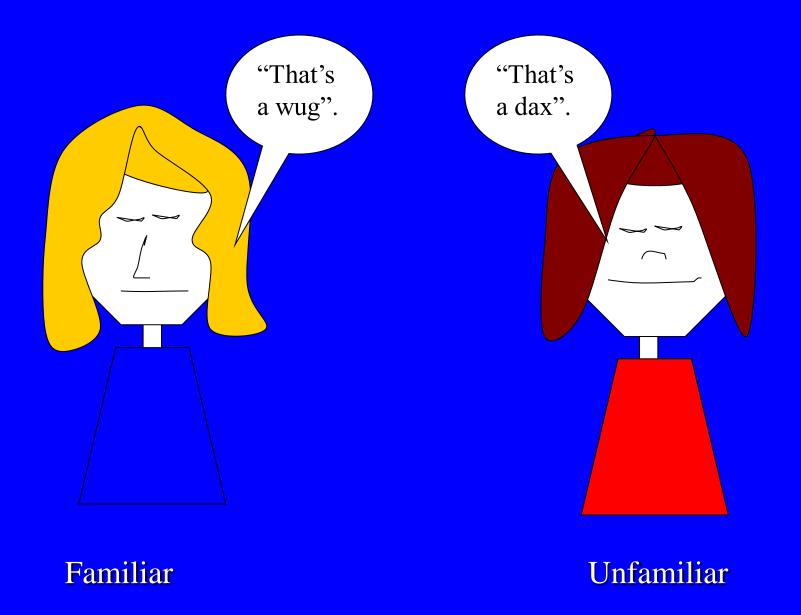
### Proportion of trials on which familiar informant is chosen (pre test)



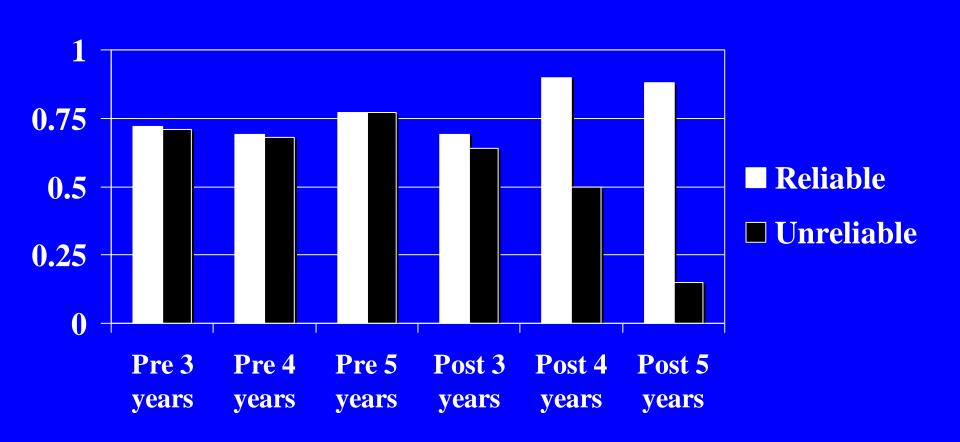








### Proportion of trials on which familiar informant is chosen (pre and post)



### Interim summary

- In the course of early development, children's selective trust is increasingly guided by epistemic rather than socioemotional factors. In acquiring new information, they trust reliable informants rather than familiar caregivers.
- Familiarity and attachment get you started but they do not carry you very far.

# How do children conceptualize a reliable informant?

# As a wise prophet who bears witness to the truth...



# ...or as a respectable citizen who fits the norms?



# Do children prefer to learn from conformists rather than misfits?

#### Two conditions

- Meaningful condition
- Extract from Curious George:
- "This is George. He was a good little monkey..."
- Meaningless condition
- Extract from Jabberwocky:
- "Twas brillig and the slimey tove..."

#### Native vs. Non-Native Accent

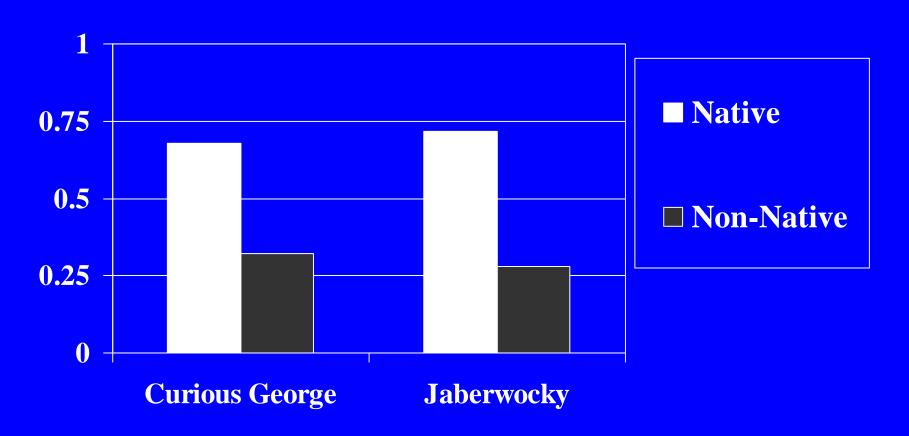


#### Non-Native vs Native Accent





### Choice of native versus nonnative speaker



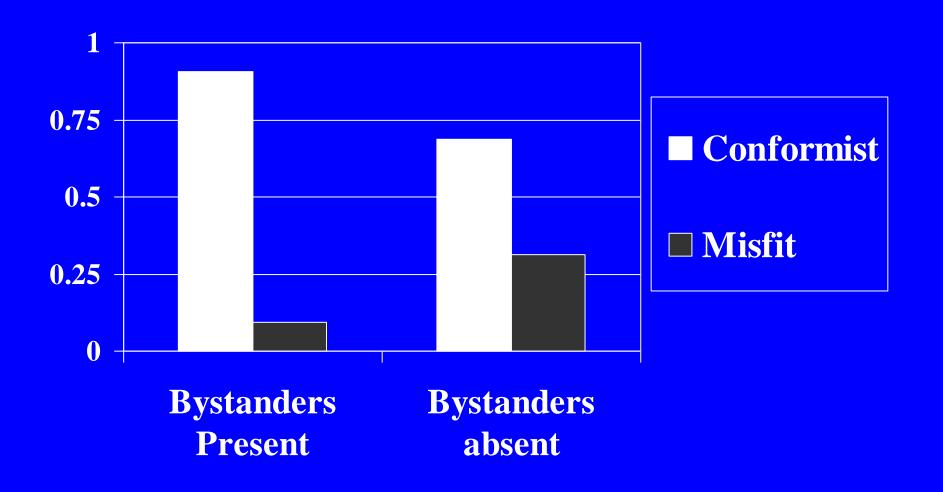
### Fusaro & Harris (2008)

- Two informants.
- Bystanders assent to the claims of one but dissent from the claims of the other
- Subsequently, the two bystanders withdrew and 4 test trials were given.
- Did children continue to prefer the conformist to the misfit





### Proportion of labels accepted by informant status and phase (Fusaro & Harris, 2009)



# Corriveau, Fusaro & Harris (2009)

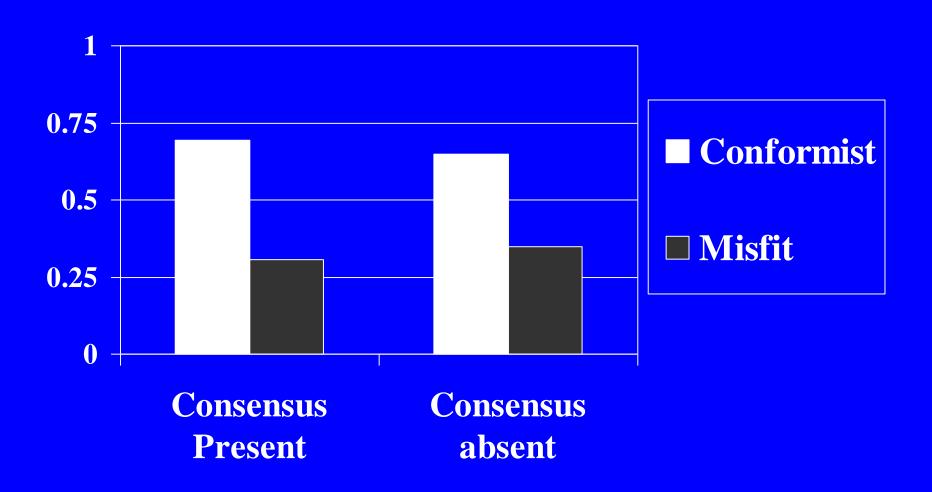
- Three informants agree, one is a misfit
- Subsequently, two members of the consensus withdrew and 4 test trials were given.
- Did children continue to prefer the conformist to the misfit

### Spot the misfit

### Ms. Blue is the misfit



# Proportion of choices by informant status and phase



## Young children are not indiscriminate in their trust

- Vertical Learning from familiar informants
- Children prefer familiar informants.
- They also prefer accurate informants
- Accuracy increasingly trumps familiarity as a cue to trustworthiness.
- Oblique and Horizontal Learning
- Children assess unfamiliar individuals for their cultural typicality.
- They prefer to learn from informants who are conformists not misfits.

### Special features of the internet

- The 'author' of what is said is hard to appraise.
  - There is often no preceding history of interaction.
  - There is no record of past accuracy and inaccuracy
  - There are few clues to group membership
  - There are rarely indices of consensus.

### Special features of the internet

• Messages on the internet have a quasi 'Delphic' quality. They emanate but children do not know their provenance.

### How can we help children (and adults) to identify trustworthy sites?

- Encourage websites, or those who participate on a given site, to post cues to trustworthiness that are intuitively easy to understand.
  - Indices of past accuracy or perceived reliability of the source (c.f. eBAY)
  - Indices of consensus and non-consensus (c.f. Wikipedia)